

## ABSTRACT

A flexible ultrasonic transducer, comprising a plurality of ultrasonic transducer elements. Each of the ultrasonic transducer elements in turn comprises a base, a membrane and a first and a second electrode. The base is made of soft material, having an upper side and a lower side, with a support set on the upper side. The membrane is able to perform vibrations, having an outer side and an inner side, which is laid on the support. The first electrode is placed on the base and the second electrode placed in the membrane, the first and second electrodes being connected with a voltage source. Manufacturing the flexible ultrasonic transducer requires less steps without increasing cost. By having a flexible shape, emission and reception of ultrasonic waves as well as an effective area are enhanced, with less attenuation of ultrasonic waves, resulting in more effective sensing.